Time series statistics (Feissel-Vernier, 2003)

- data: individual source coordinates over 1979 - 2002 (A. Fey, 2002)

NNR condition based on 212 defining sources

- stability selection scheme based on:

time series statistics of yearly averaged source coordinate

continuity critria (number of obs., length of obs. Period, ...)

statistics: linear drift (rejection condition > 50 μas/year)

Allan standard deviation

199 sources selected (« stable »)

- loosen continuity criteria

Second generation of selection (Feissel-Vernier et al. 2006)

- data: time series of source coordinates derived from global analysis

NNR condition based on 199 « stable » sources

- additional rejection condition:

apparent drift larger than 10 μas/year at 5 σ significance

44 more sources

- additional rejection condition applied to the previous time series

18 sources from the 199 rejected

(0059+581, 0202+149, 0229+131, 0234+285, 0602+673, 0738+313,
0745+241, 0749+540, 1045-188, 1053+704, 1404+286 (OQ208),
1502+106, 1606+106, 1611+343, 1638+398 (NRAO512),
1642+690, 1726+455, 1738+476)

Sensitivity of CRF to the TRF

TRF approach:

- global parameters: most stations positions and velocities
- parameters estimated / sessions: PM, UT1, nutation corrections

CRF approach:

- arc parameters: stations positions
- parameters estimated / sessions: nutation corrections

4 solutions were derived:

	Frame	Arc src	Global src
	NNR		
247_TRF, 247_CRF	unstable	all others	247 stables
212_TRF, 212_CRF	none	all	212 defining (ICRF)

Relative orientation of pairs of CRF (A1, A2, A3, dz)

Pair	A1	A2	A3	dz
247_(TRF-CRF)	0.7 +/- 0.6	0.2 +/-0.6	-2.3 +/- 0.6	0.5 +/-0.9
212_(TRF-CRF)	-6.9 +/- 1.0	6.6 +/- 1.0	1.7 +/-1.4	-4.2+/-1.4